

19.09.2024

### Kit Components

| Product code | Description |
|--------------|-------------|
|--------------|-------------|

|                     |                                            |
|---------------------|--------------------------------------------|
| <b>CY80SI-AH+SR</b> | <b>CA80SI Reagent Set<br/>for silicate</b> |
|---------------------|--------------------------------------------|

Components:

|          |                                |
|----------|--------------------------------|
| 71399134 | CA80SI Reagent RB              |
| 71399135 | CA80SI Reagent RK              |
| 71399137 | CA80SI Reagent RN, Component 1 |
| 71399139 | CA80SI Reagent RN, Component 2 |

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**Trade name: **CA80SI Reagent RB**

Article number: 71399134

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals***1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Endress+Hauser  
Conducta GmbH+Co. KG  
Dieselstraße 24  
D-70839 Gerlingen

**Further information obtainable from:**

Phone: +49 (0)7156 209-10117  
E-Mail: MSDS.PCC@endress.com

**1.4 Emergency telephone number: 0091-26589391****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS05

**Signal word** *Danger***Hazard-determining components of labelling:**

Sodium hydrogensulfate monohydrate  
sulphuric acid

**Hazard statements**

H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Trade name: CA80SI Reagent RB

(Contd. of page 1)

**Additional information:**

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

**2.3 Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

| Dangerous components:                |                                                                                                                                                                                                   |        |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| CAS: 10034-88-5<br>EINECS: 231-665-7 | Sodium hydrogensulfate monohydrate<br>Eye Dam. 1, H318                                                                                                                                            | 10-20% |
| CAS: 7664-93-9<br>EINECS: 231-639-5  | sulphuric acid<br>Skin Corr. 1A, H314<br>Specific concentration limits: Skin Corr. 1A; H314: $C \geq 15\%$<br>Skin Irrit. 2; H315: $5\% \leq C < 15\%$<br>Eye Irrit. 2; H319: $5\% \leq C < 15\%$ | 5-10%  |
| CAS: 7782-91-4<br>EINECS: 231-970-5  | molybdic acid<br>STOT RE 2, H373; Eye Irrit. 2, H319; STOT SE 3, H335                                                                                                                             | 5-10%  |

Additional information: For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information: Immediately remove any clothing soiled by the product.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: no further information

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters** No further relevant information available.

Protective equipment: Mount respiratory protective device.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 3)

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**Trade name: CA80SI Reagent RB**

(Contd. of page 2)

*Wear protective clothing.***6.2 Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.***6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to section 13.**Ensure adequate ventilation.***6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.**See Section 13 for disposal information.***SECTION 7: Handling and storage****7.1 Precautions for safe handling***Ensure good ventilation/exhaustion at the workplace.**Prevent formation of aerosols.***Information about fire - and explosion protection:** *Keep respiratory protective device available.***7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** *No special requirements.***Information about storage in one common storage facility:** *Not required.***Further information about storage conditions:** *Keep container tightly sealed.***Storage class:** 8 B**7.3 Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 7664-93-9 sulphuric acid****IOELV (EU)** | Long-term value: 0.05 mg/m<sup>3</sup>**DNELs****CAS: 7664-93-9 sulphuric acid****Inhalative** | DNEL short-term | 0.1 mg/m<sup>3</sup> (worker) (local effects)| DNEL long-term | 0.05 mg/m<sup>3</sup> (worker) (local effects)**PNECs****CAS: 7664-93-9 sulphuric acid****PNEC** | 8.8 mg/L (Wastewater treatment plant)

| 0.25 mg/L (sea water)

**PNEC** | 2.5 µg/L (fresh water)**PNEC** | 2 µg/kg (marine sediment)

| 2 µg/kg (freshwater sediment)

**Additional information:** *The lists valid during the making were used as basis.***8.2 Exposure controls****Appropriate engineering controls** *No further data; see section 7.***Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.**Avoid contact with the eyes.*

(Contd. on page 4)

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**Trade name: CA80SI Reagent RB**

(Contd. of page 3)

*Avoid contact with the eyes and skin.*

**Respiratory protection:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

**Hand protection**

*Protective gloves*

*To avoid skin problems reduce the wearing of gloves to the required minimum.*

*Only use chemical-protective gloves with CE-labelling of category III.*

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*

**Material of gloves**

*Nitrile rubber, NBR*

*Chloroprene rubber, CR*

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

**Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

**Eyeface protection**

*Tightly sealed goggles*

**Body protection:** *Protective work clothing*

**\* SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

|                                                                 |                                          |
|-----------------------------------------------------------------|------------------------------------------|
| <b>Physical state</b>                                           | <i>Fluid</i>                             |
| <b>Colour:</b>                                                  | <i>Colourless</i>                        |
| <b>Odour:</b>                                                   | <i>Odourless</i>                         |
| <b>Odour threshold:</b>                                         | <i>Not determined.</i>                   |
| <b>Melting point/freezing point:</b>                            | <i>Undetermined.</i>                     |
| <b>Boiling point or initial boiling point and boiling range</b> | <i>100 °C</i>                            |
| <b>Flammability</b>                                             | <i>Not applicable.</i>                   |
| <b>Lower and upper explosion limit</b>                          |                                          |
| <b>Lower:</b>                                                   | <i>Not determined.</i>                   |
| <b>Upper:</b>                                                   | <i>Not determined.</i>                   |
| <b>Flash point:</b>                                             | <i>Not applicable.</i>                   |
| <b>pH at 20 °C</b>                                              | <i>0-2</i>                               |
| <b>Viscosity:</b>                                               |                                          |
| <b>Kinematic viscosity</b>                                      | <i>Not determined.</i>                   |
| <b>Dynamic:</b>                                                 | <i>Not determined.</i>                   |
| <b>Solubility</b>                                               |                                          |
| <b>water:</b>                                                   | <i>Not miscible or difficult to mix.</i> |
| <b>Partition coefficient n-octanol/water (log value)</b>        | <i>Not determined.</i>                   |
| <b>Vapour pressure at 20 °C:</b>                                | <i>23 hPa</i>                            |
| <b>Density and/or relative density</b>                          |                                          |
| <b>Density:</b>                                                 | <i>Not determined.</i>                   |

(Contd. on page 5)

IND —

## Trade name: CA80SI Reagent RB

(Contd. of page 4)

|                                                                                      |                                                                  |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Relative density                                                                     | Not determined.                                                  |
| Vapour density                                                                       | Not determined.                                                  |
| <b>9.2 Other information</b>                                                         |                                                                  |
| Appearance:                                                                          |                                                                  |
| Form:                                                                                | Fluid                                                            |
| <b>Important information on protection of health and environment, and on safety.</b> |                                                                  |
| Ignition temperature:                                                                | Product is not selfigniting.                                     |
| Explosive properties:                                                                | Product does not present an explosion hazard.<br>Not determined. |
| Solvent content:                                                                     |                                                                  |
| Water:                                                                               | >65.0 %                                                          |
| Solids content:                                                                      | 0.0 %                                                            |
| Change in condition                                                                  |                                                                  |
| Evaporation rate                                                                     | Not determined.                                                  |
| <b>Information with regard to physical hazard classes</b>                            |                                                                  |
| Explosives                                                                           | Void                                                             |
| Flammable gases                                                                      | Void                                                             |
| Aerosols                                                                             | Void                                                             |
| Oxidising gases                                                                      | Void                                                             |
| Gases under pressure                                                                 | Void                                                             |
| Flammable liquids                                                                    | Void                                                             |
| Flammable solids                                                                     | Void                                                             |
| Self-reactive substances and mixtures                                                | Void                                                             |
| Pyrophoric liquids                                                                   | Void                                                             |
| Pyrophoric solids                                                                    | Void                                                             |
| Self-heating substances and mixtures                                                 | Void                                                             |
| Substances and mixtures, which emit flammable gases in contact with water            | Void                                                             |
| Oxidising liquids                                                                    | Void                                                             |
| Oxidising solids                                                                     | Void                                                             |
| Organic peroxides                                                                    | Void                                                             |
| Corrosive to metals                                                                  | Void                                                             |
| Desensitised explosives                                                              | Void                                                             |

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:****CAS: 7782-91-4 molybdic acid**

Oral LD50 2,689 mg/kg (rat)

**Skin corrosion/irritation** Causes severe skin burns and eye damage.**Serious eye damage/irritation** Causes serious eye damage.

(Contd. on page 6)

Trade name: CA80SI Reagent RB

(Contd. of page 5)

**11.2 Information on other hazards****Endocrine disrupting properties***None of the ingredients is listed.***SECTION 12: Ecological information****12.1 Toxicity***Aquatic toxicity: No further relevant information available.***12.2 Persistence and degradability** *No further relevant information available.***12.3 Bioaccumulative potential** *No further relevant information available.***12.4 Mobility in soil** *No further relevant information available.***12.5 Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***12.6 Endocrine disrupting properties***The product does not contain substances with endocrine disrupting properties.***12.7 Other adverse effects****Additional ecological information:****General notes:***Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**Must not reach sewage water or drainage ditch undiluted or unneutralised.**Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***\* SECTION 14: Transport information****14.1 UN number or ID number****IMDG, IATA**

UN2796

**14.2 UN proper shipping name****ADR**

UN2796 SULPHURIC ACID mixture

**IMDG**

SULPHURIC ACID mixture

**IATA**

Sulphuric acid mixture

**14.3 Transport hazard class(es)****ADR****Class**

8 (C1) Corrosive substances.

**Label**

8

(Contd. on page 7)

IND —

Trade name: CA80SI Reagent RB

(Contd. of page 6)

## IMDG, IATA



|                                             |                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------|
| Class                                       | 8 Corrosive substances.                                                               |
| Label                                       | 8                                                                                     |
| 14.4 Packing group                          |                                                                                       |
| ADR, IMDG, IATA                             | II                                                                                    |
| 14.5 Environmental hazards:                 | Not applicable.                                                                       |
| 14.6 Special precautions for user           | Warning: Corrosive substances.                                                        |
| Hazard identification number (Kemler code): | 80                                                                                    |
| EMS Number:                                 | F-A, S-B                                                                              |
| Segregation groups                          | (SGG1a) Strong acids                                                                  |
| Stowage Category                            | B                                                                                     |
| Segregation Code                            | SG36 Stow "separated from" SGG18-alkalis.<br>SG49 Stow "separated from" SGG6-cyanides |

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

## Transport/Additional information:

|                         |    |
|-------------------------|----|
| ADR                     |    |
| Limited quantities (LQ) | 1L |
| Transport category      | 2  |
| Tunnel restriction code | E  |

|                          |                                                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------------------|
| IMDG                     |                                                                                                                 |
| Limited quantities (LQ)  | 1L                                                                                                              |
| Excepted quantities (EQ) | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| UN "Model Regulation":   | UN 2796 SULPHURIC ACID MIXTURE, 8, II                                                                           |

## SECTION 15: Regulatory information

## 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

## Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

## Hazard pictograms



GHS05

Signal word *Danger*

## Hazard-determining components of labelling:

Sodium hydrogensulfate monohydrate  
sulphuric acid

## Hazard statements

H314 Causes severe skin burns and eye damage.

## Precautionary statements

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

(Contd. on page 8)

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**Trade name: CA80SI Reagent RB**

(Contd. of page 7)

*P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information***This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***16.1 Relevant phrases***H314 Causes severe skin burns and eye damage.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.**H373 May cause damage to organs through prolonged or repeated exposure.***16.3 Recommended restriction of use****Department issuing SDS:** *PCC-TWR***Contact:** *MSDS.pcc@endress.com***Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2***\* Data compared to the previous version altered.**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**Trade name: **CA80SI Reagent RK**

Article number: 71399135

**1.2 Relevant identified uses of the substance or mixture and uses advised against***No further relevant information available.*Application of the substance / the mixture *Laboratory chemicals***1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Endress+Hauser  
Conducta GmbH+Co. KG  
Dieselstraße 24  
D-70839 Gerlingen

**Further information obtainable from:**

Phone: +49 (0)7156 209-10117  
E-Mail: MSDS.PCC@endress.com

**1.4 Emergency telephone number: 0091-26589391****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

*corrosion**Skin Corr. 1 H314 Causes severe skin burns and eye damage.**Eye Dam. 1 H318 Causes serious eye damage.***2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms**

GHS05

**Signal word** *Danger***Hazard statements***H314 Causes severe skin burns and eye damage.***Precautionary statements***P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a POISON CENTER/doctor.**P321 Specific treatment (see on this label).**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** *Not applicable.*

(Contd. on page 2)

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Trade name: CA80SI Reagent RK

(Contd. of page 1)

vPvB: Not applicable.

**\* SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

| Dangerous components:             |                                                                                                                                                                                                                                                                               |        |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| CAS: 77-92-9<br>EINECS: 201-069-1 | citric acid<br>Eye Irrit. 2, H319; STOT SE 3, H335                                                                                                                                                                                                                            | 10-20% |
| CAS: 79-09-4<br>EINECS: 201-176-3 | propionic acid<br>Flam. Liq. 3, H226; Acute Tox. 3, H311; Skin Corr. 1B, H314<br>Specific concentration limits: Skin Corr. 1B; H314: $C \geq 25\%$<br>Skin Irrit. 2; H315: $10\% \leq C < 25\%$<br>Eye Irrit. 2; H319: $10\% \leq C < 25\%$<br>STOT SE 3; H335: $C \geq 10\%$ | 0.1-1% |

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:** Immediately remove any clothing soiled by the product.**After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**For safety reasons unsuitable extinguishing agents:** no further information**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters** No further relevant information available.**Protective equipment:** Mount respiratory protective device.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

(Contd. on page 3)

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Trade name: CA80SI Reagent RK

(Contd. of page 2)

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about fire - and explosion protection:** Keep respiratory protective device available.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep container tightly sealed.**Storage class:** 8 A**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 79-09-4 propionic acid****IOELV (EU)** Short-term value: 62 mg/m<sup>3</sup>, 20 ppmLong-term value: 31 mg/m<sup>3</sup>, 10 ppm**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Appropriate engineering controls** No further data; see section 7.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Hand protection**

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)

IND —

Trade name: CA80SI Reagent RK

(Contd. of page 3)

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eyeface protection**

Tightly sealed goggles

Body protection: Protective work clothing

\* **SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

|                                                          |                                   |
|----------------------------------------------------------|-----------------------------------|
| Physical state                                           | Fluid                             |
| Colour:                                                  | Colourless                        |
| Odour:                                                   | Odourless                         |
| Odour threshold:                                         | Not determined.                   |
| Melting point/freezing point:                            | Undetermined.                     |
| Boiling point or initial boiling point and boiling range | 100 °C                            |
| Flammability                                             | Not applicable.                   |
| Lower and upper explosion limit                          |                                   |
| Lower:                                                   | Not determined.                   |
| Upper:                                                   | Not determined.                   |
| Flash point:                                             | > 60 °C                           |
| Auto-ignition temperature:                               | 1,010 °C                          |
| pH at 20 °C                                              | 1-3                               |
| Viscosity:                                               |                                   |
| Kinematic viscosity                                      | Not determined.                   |
| Dynamic:                                                 | Not determined.                   |
| Solubility                                               |                                   |
| water:                                                   | Not miscible or difficult to mix. |
| Partition coefficient n-octanol/water (log value)        | Not determined.                   |
| Vapour pressure at 20 °C:                                | 23 hPa                            |
| Density and/or relative density                          |                                   |
| Density at 20 °C:                                        | 1.057 g/cm <sup>3</sup>           |
| Relative density                                         | Not determined.                   |
| Vapour density                                           | Not determined.                   |

**9.2 Other information**

|                                                                               |                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------|
| Appearance:                                                                   |                                                                  |
| Form:                                                                         | Fluid                                                            |
| Important information on protection of health and environment, and on safety. |                                                                  |
| Ignition temperature:                                                         | Product is not selfigniting.                                     |
| Explosive properties:                                                         | Product does not present an explosion hazard.<br>Not determined. |
| Solvent content:                                                              |                                                                  |
| Water:                                                                        | >80.0 %                                                          |
| Solids content:                                                               | 0.0 %                                                            |
| Change in condition                                                           |                                                                  |
| Evaporation rate                                                              | Not determined.                                                  |
| Information with regard to physical hazard classes                            |                                                                  |
| Explosives                                                                    | Void                                                             |

(Contd. on page 5)

IND —

Trade name: CA80SI Reagent RK

(Contd. of page 4)

|                                                                           |      |
|---------------------------------------------------------------------------|------|
| Flammable gases                                                           | Void |
| Aerosols                                                                  | Void |
| Oxidising gases                                                           | Void |
| Gases under pressure                                                      | Void |
| Flammable liquids                                                         | Void |
| Flammable solids                                                          | Void |
| Self-reactive substances and mixtures                                     | Void |
| Pyrophoric liquids                                                        | Void |
| Pyrophoric solids                                                         | Void |
| Self-heating substances and mixtures                                      | Void |
| Substances and mixtures, which emit flammable gases in contact with water | Void |
| Oxidising liquids                                                         | Void |
| Oxidising solids                                                          | Void |
| Organic peroxides                                                         | Void |
| Corrosive to metals                                                       | Void |
| Desensitised explosives                                                   | Void |

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****CAS: 77-92-9 citric acid**

Oral LD50 5,040 mg/kg (mouse)

**CAS: 79-09-4 propionic acid**

Oral LD50 2,600 mg/kg (rat)

Dermal LD50 500 mg/kg (rabbit)

**Skin corrosion/irritation** Causes severe skin burns and eye damage.**Serious eye damage/irritation** Causes serious eye damage.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

(Contd. on page 6)

IND

Trade name: CA80SI Reagent RK

(Contd. of page 5)

**12.6 Endocrine disrupting properties***The product does not contain substances with endocrine disrupting properties.***12.7 Other adverse effects****Additional ecological information:****General notes:***Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**Must not reach sewage water or drainage ditch undiluted or unneutralised.**Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***SECTION 14: Transport information****14.1 UN number or ID number**

ADN, IMDG, IATA

Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA

Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class

Void

**14.4 Packing group**

ADR, IMDG, IATA

Void

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Not applicable.

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

UN "Model Regulation":

Void

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms**

GHS05

**Signal word** *Danger***Hazard statements***H314 Causes severe skin burns and eye damage.***Precautionary statements***P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*

(Contd. on page 7)

**Trade name: CA80SI Reagent RK**

(Contd. of page 6)

*P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*P310 Immediately call a POISON CENTER/doctor.*

*P321 Specific treatment (see on this label).*

*P405 Store locked up.*

*P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**16.1 Relevant phrases***H226 Flammable liquid and vapour.**H311 Toxic in contact with skin.**H314 Causes severe skin burns and eye damage.**H315 Causes skin irritation.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.***16.3 Recommended restriction of use****Department issuing SDS:** *PCC-TWR***Contact:** *MSDS.pcc@endress.com***Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 3: Acute toxicity – Category 3**Skin Corr. 1: Skin corrosion/irritation – Category 1**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3***\* Data compared to the previous version altered.**

— IND —

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name: **CA80SI Reagent RN, Component 1**

Article number: 71399137

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

Endress+Hauser

Conducta GmbH+Co. KG

Dieselstraße 24

D-70839 Gerlingen

**Further information obtainable from:**

Phone: +49 (0)7156 209-10117

E-Mail: [MSDS.PCC@endress.com](mailto:MSDS.PCC@endress.com)

**1.4 Emergency telephone number:** 0091-26589391

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



corrosion

Skin Corr. 1 H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS05

**Signal word** *Danger*

**Hazard statements**

H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

**Results of PBT and vPvB assessment**

PBT: Not applicable.

(Contd. on page 2)

IND —

**Trade name: CA80SI Reagent RN, Component 1**

vPvB: Not applicable.

(Contd. of page 1)

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

Description: aqueous solution

**Dangerous components:**

|                   |                                                                    |      |
|-------------------|--------------------------------------------------------------------|------|
| CAS: 124-68-5     | 2-amino-2-methylpropanol                                           | 2-6% |
| EINECS: 204-709-8 | ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 |      |

Additional information: For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information: Immediately remove any clothing soiled by the product.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: no further information

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters** No further relevant information available.

Protective equipment: Mount respiratory protective device.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

**6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 3)

— IND —

**Trade name: CA80SI Reagent RN, Component 1**

(Contd. of page 2)

See Section 13 for disposal information.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about fire - and explosion protection:** Keep respiratory protective device available.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

**Storage class:** 8 A

**7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Appropriate engineering controls** No further data; see section 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Hand protection**



Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)

— IND —

Trade name: CA80SI Reagent RN, Component 1

(Contd. of page 3)

## Eyeface protection



Tightly sealed goggles

Body protection: Protective work clothing

## \* SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

## General Information

|                                                          |                         |
|----------------------------------------------------------|-------------------------|
| Physical state                                           | Fluid                   |
| Colour:                                                  | Colourless              |
| Odour:                                                   | Odourless               |
| Odour threshold:                                         | Not determined.         |
| Melting point/freezing point:                            | Undetermined.           |
| Boiling point or initial boiling point and boiling range | 100 °C                  |
| Flammability                                             | Not applicable.         |
| Lower and upper explosion limit                          |                         |
| Lower:                                                   | Not determined.         |
| Upper:                                                   | Not determined.         |
| Flash point:                                             | > 100 °C                |
| pH at 20 °C                                              | 11-13                   |
| Viscosity:                                               |                         |
| Kinematic viscosity                                      | Not determined.         |
| Dynamic:                                                 | Not determined.         |
| Solubility                                               |                         |
| water:                                                   | Fully miscible.         |
| Partition coefficient n-octanol/water (log value)        | Not determined.         |
| Vapour pressure at 20 °C:                                | 23 hPa                  |
| Density and/or relative density                          |                         |
| Density at 20 °C:                                        | 0.997 g/cm <sup>3</sup> |
| Relative density                                         | Not determined.         |
| Vapour density                                           | Not determined.         |

## 9.2 Other information

|                                                                               |                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------|
| Appearance:                                                                   |                                                                  |
| Form:                                                                         | Fluid                                                            |
| Important information on protection of health and environment, and on safety. |                                                                  |
| Ignition temperature:                                                         | Product is not selfigniting.                                     |
| Explosive properties:                                                         | Product does not present an explosion hazard.<br>Not determined. |
| Solvent content:                                                              |                                                                  |
| Organic solvents:                                                             | 6.0 %                                                            |
| Water:                                                                        | >90.0 %                                                          |
| Solids content:                                                               | 0.0 %                                                            |
| Change in condition                                                           |                                                                  |
| Evaporation rate                                                              | Not determined.                                                  |

## Information with regard to physical hazard classes

|                      |      |
|----------------------|------|
| Explosives           | Void |
| Flammable gases      | Void |
| Aerosols             | Void |
| Oxidising gases      | Void |
| Gases under pressure | Void |

(Contd. on page 5)

## Trade name: CA80SI Reagent RN, Component 1

(Contd. of page 4)

|                                                                           |      |
|---------------------------------------------------------------------------|------|
| Flammable liquids                                                         | Void |
| Flammable solids                                                          | Void |
| Self-reactive substances and mixtures                                     | Void |
| Pyrophoric liquids                                                        | Void |
| Pyrophoric solids                                                         | Void |
| Self-heating substances and mixtures                                      | Void |
| Substances and mixtures, which emit flammable gases in contact with water | Void |
| Oxidising liquids                                                         | Void |
| Oxidising solids                                                          | Void |
| Organic peroxides                                                         | Void |
| Corrosive to metals                                                       | Void |
| Desensitised explosives                                                   | Void |

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** Based on available data, the classification criteria are not met.**Skin corrosion/irritation** Causes severe skin burns and eye damage.**Serious eye damage/irritation** Causes serious eye damage.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects****Additional ecological information:****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

(Contd. on page 6)

— IND —

Trade name: CA80SI Reagent RN, Component 1

(Contd. of page 5)

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***Recommended cleansing agents:** *Water, if necessary together with cleansing agents.***SECTION 14: Transport information****14.1 UN number or ID number**

ADN, IMDG, IATA

Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA

Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class

Void

**14.4 Packing group**

ADR, IMDG, IATA

Void

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Not applicable.

**14.7 Maritime transport in bulk according to IMO**

instruments

Not applicable.

UN "Model Regulation":

Void

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms**

GHS05

**Signal word** *Danger***Hazard statements***H314 Causes severe skin burns and eye damage.***Precautionary statements***P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a POISON CENTER/doctor.**P321 Specific treatment (see on this label).**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

(Contd. on page 7)

**Trade name: CA80SI Reagent RN, Component 1**

(Contd. of page 6)

**15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**16.1 Relevant phrases***H315 Causes skin irritation.**H319 Causes serious eye irritation.**H412 Harmful to aquatic life with long lasting effects.***16.3 Recommended restriction of use****Department issuing SDS:** PCC-TWR**Contact:** MSDS.pcc@endress.com**Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Corr. 1: Skin corrosion/irritation – Category 1**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3***\* Data compared to the previous version altered.**

— IND —

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name: **CA80SI Reagent RN, Component 2**

Article number: 71399139

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Endress+Hauser  
Conducta GmbH+Co. KG  
Dieselstraße 24  
D-70839 Gerlingen

#### Further information obtainable from:

Phone: +49 (0)7156 209-10117  
E-Mail: MSDS.PCC@endress.com

### 1.4 Emergency telephone number: 0091-26589391

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

#### Hazard pictograms



GHS05 GHS07

Signal word *Danger*

#### Hazard-determining components of labelling:

disodium disulphite

#### Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

#### Precautionary statements

P280 Wear eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

(Contd. on page 2)

IND —

**Trade name: CA80SI Reagent RN, Component 2**

P501

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. of page 1)

**Additional information:***EUH031 Contact with acids liberates toxic gas.***2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** *Mixture of substances listed below with nonhazardous additions.***Dangerous components:**

CAS: 7681-57-4

disodium disulphite

EINECS: 231-673-0

☞ Eye Dam. 1, H318; ☞ Acute Tox. 4, H302, EUH031

70-90%

**Additional information:** *For the wording of the listed hazard phrases refer to section 16.***SECTION 4: First aid measures****4.1 Description of first aid measures****General information:***Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.***After inhalation:** *Supply fresh air; consult doctor in case of complaints.***After skin contact:** *Generally the product does not irritate the skin.***After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.***After swallowing:** *Call for a doctor immediately.***4.2 Most important symptoms and effects, both acute and delayed***No further relevant information available.***4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***\* SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.***For safety reasons unsuitable extinguishing agents:** *no further information***5.2 Special hazards arising from the substance or mixture** *No further relevant information available.***5.3 Advice for firefighters** *No further relevant information available.***Protective equipment:** *Mount respiratory protective device.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures***Mount respiratory protective device.**Wear protective equipment. Keep unprotected persons away.**Wear protective clothing.***6.2 Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.***6.3 Methods and material for containment and cleaning up:***Use neutralising agent.**Dispose contaminated material as waste according to section 13.***6.4 Reference to other sections***See Section 7 for information on safe handling.*

(Contd. on page 3)

— IND —

## Trade name: CA80SI Reagent RN, Component 2

(Contd. of page 2)

See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** *Thorough dedusting.*

**Information about fire - and explosion protection:** *No special measures required.*

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** *No special requirements.*

**Information about storage in one common storage facility:** *Do not store together with acids.*

**Further information about storage conditions:** *Keep container tightly sealed.*

**Storage class:** *11*

**7.3 Specific end use(s)** *No further relevant information available.*

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

*The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.*

**Additional information:** *The lists valid during the making were used as basis.*

**8.2 Exposure controls**

**Appropriate engineering controls** *No further data; see section 7.*

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

*Keep away from foodstuffs, beverages and feed.*

*Immediately remove all soiled and contaminated clothing*

*Wash hands before breaks and at the end of work.*

*Avoid contact with the eyes.*

*Avoid contact with the eyes and skin.*

**Respiratory protection:** *Not required.*

**Hand protection**



*Protective gloves*

*To avoid skin problems reduce the wearing of gloves to the required minimum.*

*Only use chemical-protective gloves with CE-labelling of category III.*

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*

**Material of gloves**

*Nitrile rubber, NBR*

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

**Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

(Contd. on page 4)

— IND —

Trade name: CA80SI Reagent RN, Component 2

(Contd. of page 3)

## Eyeface protection



Tightly sealed goggles

Body protection: Protective work clothing

## \* SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

## General Information

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| Physical state                                           | Solid           |
| Colour:                                                  | White           |
| Odour:                                                   | Odourless       |
| Odour threshold:                                         | Not determined. |
| Melting point/freezing point:                            | Undetermined.   |
| Boiling point or initial boiling point and boiling range | Undetermined.   |
| Flammability                                             | Not determined. |
| Lower and upper explosion limit                          |                 |
| Lower:                                                   | Not determined. |
| Upper:                                                   | Not determined. |
| Flash point:                                             | Not applicable. |
| pH                                                       | Not applicable. |
| Viscosity:                                               |                 |
| Kinematic viscosity                                      | Not applicable. |
| Dynamic:                                                 | Not applicable. |
| Solubility                                               |                 |
| water:                                                   | Insoluble.      |
| Partition coefficient n-octanol/water (log value)        | Not determined. |
| Vapour pressure:                                         | Not applicable. |
| Density and/or relative density                          |                 |
| Density:                                                 | Not determined. |
| Relative density                                         | Not determined. |
| Vapour density                                           | Not applicable. |

## 9.2 Other information

|                                                                               |                                                                  |
|-------------------------------------------------------------------------------|------------------------------------------------------------------|
| Appearance:                                                                   |                                                                  |
| Form:                                                                         | Powder                                                           |
| Important information on protection of health and environment, and on safety. |                                                                  |
| Ignition temperature:                                                         | Product is not selfigniting.                                     |
| Explosive properties:                                                         | Product does not present an explosion hazard.<br>Not determined. |
| Solvent content:                                                              |                                                                  |
| Solids content:                                                               | 100.0 %                                                          |
| Change in condition                                                           |                                                                  |
| Evaporation rate                                                              | Not applicable.                                                  |

## Information with regard to physical hazard classes

|                      |      |
|----------------------|------|
| Explosives           | Void |
| Flammable gases      | Void |
| Aerosols             | Void |
| Oxidising gases      | Void |
| Gases under pressure | Void |
| Flammable liquids    | Void |
| Flammable solids     | Void |

(Contd. on page 5)

## Trade name: CA80SI Reagent RN, Component 2

(Contd. of page 4)

|                                                                           |      |
|---------------------------------------------------------------------------|------|
| Self-reactive substances and mixtures                                     | Void |
| Pyrophoric liquids                                                        | Void |
| Pyrophoric solids                                                         | Void |
| Self-heating substances and mixtures                                      | Void |
| Substances and mixtures, which emit flammable gases in contact with water | Void |
| Oxidising liquids                                                         | Void |
| Oxidising solids                                                          | Void |
| Organic peroxides                                                         | Void |
| Corrosive to metals                                                       | Void |
| Desensitised explosives                                                   | Void |

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**\* SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** Harmful if swallowed.**Serious eye damage/irritation** Causes serious eye damage.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

**\* SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects****Additional ecological information:****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

(Contd. on page 6)

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Trade name: CA80SI Reagent RN, Component 2

(Contd. of page 5)

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***\* SECTION 14: Transport information****14.1 UN number or ID number**

ADN, IMDG, IATA Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class Void

**14.4 Packing group**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:** Not applicable.**14.6 Special precautions for user** Not applicable.**14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

UN "Model Regulation": Void

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms**

GHS05 GHS07

**Signal word** *Danger***Hazard-determining components of labelling:***disodium disulphite***Hazard statements***H302 Harmful if swallowed.**H318 Causes serious eye damage.***Precautionary statements***P280 Wear eye protection / face protection.**P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P310 Immediately call a POISON CENTER/doctor.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.***National regulations:****Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

(Contd. on page 7)

**Trade name: CA80SI Reagent RN, Component 2**

(Contd. of page 6)

**15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**16.1 Relevant phrases**

*H302 Harmful if swallowed.*

*H318 Causes serious eye damage.*

*EUH031 Contact with acids liberates toxic gas.*

**16.3 Recommended restriction of use**

**Department issuing SDS:** PCC-TWR

**Contact:** MSDS.pcc@endress.com

**Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Acute toxicity – Category 4*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

**\* Data compared to the previous version altered.**

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